

sufficient promise, but from want of pecuniary resources in some respects, and also differences which arose among the adventurers. We now find, however, the law requiring a premium for granting the seat to a new company—and have only further to observe, while the system is to be reprehended, as affects the conduct of the lessor, that the lessors, or adventurers (or rather the parties who represent them), are equally culpable, in thus leading themselves to a practice, which must, in the end, have a prejudicial effect. We are aware the mines were offered to the best bidder, but have reason to believe that several parties, with a proper feeling, declined lending themselves to a system so fraught with injustice to the community at large. We have no observations to offer as regards the mines—for they may be, for aught we know, worth ten times the amount paid; yet we cannot but deprecate the system, which, without allegation being drawn to it, may, are long, become a practice, and, at least, serve as a precedent.

We have oft remarked that the weekly reports furnished from the mining districts are not only devoid of interest, but calculated rather to mislead, than to afford information. The idea that an underground agent (for he alone can and ought to report) has it in his power at the time of writing to render information of a novel character, without a discovery for the better or worse should take place at that immediate moment, carries with it a degree of absurdity which we regret should be tolerated or encouraged.

In again directing attention to the subject of weekly reports, we will endeavour so to place our arguments before the adventurers, as will, we think, be conclusive—and, being so, will, we hope, lead to an alteration such as will, we feel assured, be accepted as a boon by the resident agent, and relieve the London management from the onerous duties imposed on them of opening the weekly report, while it will make them more alive to their own interests, or rather, we should say, to those of their constituents—reports, with the cost sheet, being furnished, we would suggest, only monthly, except when occasion warrants a deviation from such course.

Let us take, for instance, the reports from the several mines in Cornwall in our last week's Number—and what is the general nature of them? We will see. "The lode continues as last reported"—"the lode is now fourteen inches big"—"the forty fathom level is improving, with spots of ore"—"the sixty fathom level is fair tribute ground"—"the mine sinking from the thirty is in fair ground"—"the lode in the twenty-five fathom level is worth £1 per fathom"—"in sinking the shaft the ground is hard"—"we are driving the cross-cut, as reported in our last, and hope soon to take the lode at the seventy." Such are the ordinary reports, without one word to guide the adventurer as to the value or the prospects of the mine. But that we may not err, let us refer more particularly to the reports, as given in their own words, without noticing the individual mines. In one, we are told, "The lode in the sixty fathom level, east of * * * shaft, is fifteen inches wide, very good tribute ground; the lode in the fifty fathom level west is eighteen inches wide, very good tribute ground; the lode in the fifty fathom level, west of * * * shaft, is ten inches wide, tribute ground;" &c. Now, take we another—here we find in one level in "a good course of ore," in the banks "a good lode of ore," the seventy fathom level east is described as a "large ore lode," in the bottom of the seventy is a "fine course of ore," at two other levels the lode is said to be disordered, but producing "small branches of ore;" then we have the "great length of ore ground," with speculations and expectations for the future. This report is, of course, considered satisfactory, and yet no one comprehends it: while we feel assured, the very able agents who drew it up, were it submitted to them six months hence, would say, "What can this mean?—what does it refer to?"

Let us, however, proceed. In our next notice we have a little more information conveyed, for we are told the worth of the lode at one or two points of working—but we are not informed what is the cost, whether the ground is set on tribute or turnwork, the charge for hauling or raising to surface, the cobbling or dressing, and putting to pile, the water charge, and many other expenses, necessary to enable us to judge of the comparative value, at least—with these simple matters, of course, the adventurers have nothing to do. This report, however, like the others, indulges in the often expressed phrases of "ground favourable," lode much the same as last reported" (which remark may, possibly, be traced some weeks or months back), "the lode looking promising," with "we hope to report more fully on it in our next;" and we are further told, the "tribute department is looking much the same as for some time past."

The next report we arrive at is, we admit, more business-like, and easier to be comprehended; although, with the system as at present observed, it is impossible to accomplish the desired end—that of placing before the adventurers the real state of the mine and its prospects. It is, we feel, unnecessary to follow through the several reports—for one is a sample of the whole, affording, as they do, a strong contrast to the reports received from foreign mines, which are, at least, business-like—but then it is to be remembered, these are furnished monthly, and there is something to write upon.

The following is the plan we should recommend for adoption, and we feel assured that it would, in the end, be satisfactory to the shareholders—while it would save the local or practical management of much labour—in the first place, we would have only monthly reports, which should accompany the accounts, both of which should be open to the adventurers, and the first (with an abstract of the latter) inserted in the MINING JOURNAL. These reports should have reference to the items in the cost sheet—they should explain any excess of expenditure, or they should attribute to the present cause any surplus quantity or diminution of ore raised; the report should further state what ground had been worked away, also the average tribute or cost per fathom by turnwork, the quantity of ground explored and hole discovered, the nature of the lode—with explanations, where necessary, as regards the accounts, whether as relates to "stone," an increase or decrease in price or consumption of materials, and such other points as may be deserving of notice, reporting quantity of ore broken and parcelled—indeed, we would have the monthly report a complete digest of the month's operations and a fair abstract of the cost sheet, accompanied every two months by a copy of the plan kept of underground workings, which latter we hope to see endorsed by the Legislators.

We have not yet, by saying, that we would require only a monthly report, which should accompany the cost sheet; but this we do not mean should preclude the agent from communicating with the board of management in London when any discrepancy may take place, accident alone, or caused by accident—and hence we would not limit him to monthly or weekly reports; but it should be considered the duty of the agent to report from time to time, on any changes which might take place, without being called upon to give a report upon the whole of the workings, by doing which he frequently places himself in an ascertainable position, from his desire to give satisfaction—while it is quite clear he cannot please all parties.

We trust these few hints will not be thrown away—we know that they will be suspended in many quarters, and, as our object is to secure legitimate reports, and, at the same time, to avoid giving unnecessary trouble to agents, who should be otherwise more easily controlled—and, furthermore, to render the reports more important to the shareholders—we hope that we shall find support on the part of shareholders, although the board of management may still hold to weekly reports, whenever these circumstances are considered necessary. We would, we repeat, have the reports only when any tidings were to be rendered, and the letters should be opened and laid before the shareholders at large, without favour or disfavour. Letters from shareholders might be addressed to the secretary.

THE GOVERNMENT RAILWAY MEASURE.

The Railway Regulation Bill is now disposed of—it has become the law of the land, and its operations, whether for good or evil, will soon be felt. We are rejoiced, however, to find, from the general tone taken by the speakers at the half-yearly meetings of the companies now being held throughout the country, that the prevailing opinion is, railway proprietors will not suffer from the late measure. Mr. Hume, at the York and North Midland meeting, a few days since, expressed himself strongly in favour of the Bill; he said, "it was now a really useful measure, equally beneficial to the country as it was to the proprietors." We confess we are not by any means prepared to state in such unqualified terms our commendation, even of the best clauses the Bill contains. At the Great Western meeting, held at Bristol on Thursday, Mr. Russell, M.P. (the chairman), said, that "the measure, in its original form, was most unkind in principle, unwise in its provisions, and unjust to railway companies; and he had, consequently, in his place in the House of Commons, offered to it in every way his most strenuous opposition." He need say, nevertheless, that Mr. Glanstron (the President of the Board of Trade) had since shown a disposition to meet the companies, in a fair and liberal spirit; and, by the modifications which had since been introduced into the measure, it had been purged of a considerable portion of its injustice. He still considered, however, that it was radically unkind in principle; and, as a Member of the House of Commons, no less than as a railway proprietor, he was extremely sorry such a bill had ever passed. It had now, however, become the law of the land; and he hoped, as the Great Western Railway had been the firmest and most strenuous in their opposition to it, they would now be among the most willing to obey it, and enable it to be worked out usefully and justly.

We have on so many occasions directed the attention of our readers to the various principles contained in the Bill, that we do not consider it necessary to refer to them again at any length: there are, however, some details we have not noticed which we cannot pass altogether over in silence.

The purchase clause, which stands No. 2 in the amended Bill, invests the Board of Trade with the power of purchase; but enacts that Government must apply to Parliament, and receive the express sanction of the Legislature, before that power be carried into effect—this is a most important alteration. By the old bill it was not necessary for the executive to apply to Parliament at any time after a railway should have fallen within the range of the purchase clause; it required but the will of the Board of Trade to seten on it, and transfer it to the Government. Now, the entire question as to the policy of such a course will be raised; whenever the expediency of Government purchase be again mooted, the subject must be discussed in all its bearings—the possibility of Government being better managers for the public than the companies must be fully proved, before the people of this country would ever submit to such a change in our commercial policy, as would be effected by the introduction of this principle.

With the Bill itself we have done for the present; in the course of a few months it will be in full operation, when its practical working will be the best test of its usefulness. We have no doubt but that the several companies which come within the operations of the Act will carry out its provisions in such a spirit of fairness towards the public as will afford the best guarantee that any further interference on the part of Government should be altogether uncalled for.

CHARGES FOR CONVEYING COAL AND IRON ON CANALS.

An important meeting of coal and iron masters of South Staffordshire took place on Wednesday, the 14th instant, at the Royal Oak, Tipton, to take into consideration the great decrease in the sale of coal of South Staffordshire, through the high charges of the canal companies, and to take such measures as would be most likely to meet the evil. Mr. P. Williams was called to the chair.—From the discussion which ensued, it appeared, that the quantity of coal transmitted from that district in 1832 exceeded that of 1843 by 82,259 tons; and that the three months of May, June, and July last showed a falling off, as compared with the corresponding three months of 1843, of 4,360 tons, or at the rate of 17.440 tons per ton-mile. This was attributed to an arrangement between the Warwick and Birmingham, Warwick and Napton, and Coventry Canal Companies, to keep up a rate of toll which had positively proved prohibitory; the high and often inconsistent charges of the Grand Junction were also considered one source of the evil. It was stated, that if the tonnage could be reduced, a market was open in London for branch coal, which would cause a consumption of 100,000 tons per annum from the district. A branch canal, of twelve miles, to the Birmingham Canal, was spoken of, which would cost £60,000; and the cost of an entire new canal to London was estimated at two and a half millions. A series of resolutions were eventually passed, expressing the state of the trade, and feelings of the operating on its various causes, and the meeting afterwards separated.—The enormous charges of some of the canals tend not only to injure their own property, but to ruin the trade of the district in which they are situated.

APPLICATION OF ELECTRICITY TO IMPROVING THE MANUFACTURE OF IRON.

A paragraph appeared in *The Times* on Monday last, drawing attention to an improvement in the manufacture of iron by the application of electricity.—The process referred to is that patented by Mr. Arthur Wall, the particulars of which have already appeared in the *Mining Journal*; but as the subject is one of great importance, we here add the substance of the specification:—"In casting a bar or similar mass, the electric current is caused to traverse from end to end, by conductors so arranged, that when the metal runs into the mould it may complete the electric circuit, or, by means of a wire or wires, passed from one end of the mould to the other. If the castings are horizontal, a piece of wrought-iron or other conducting material is placed at each end of the mould, which is made of sand, or other non-conducting substance; these conductors are then connected by wires with a galvanic apparatus, or voltaic pile, or electro-magnetic or other battery—so that, when the melted iron is run into the mould, it will complete the electric circuit; and the current passes to complete the electric current for some time after the iron has solidified. When the castings are vertical, a similar arrangement is made for the passage of the electric current through the mould, by placing a conductor at the top and bottom of the mould, in such a manner that the electric circuit will be completed the moment the mould is filled with the liquid iron. To apply electricity to iron in a smelting furnace or cupola, a wrought-iron rod is introduced through or at the side of the top-hole, until it comes in contact with the melting metal, and another wrought-iron rod is introduced at the upper and posterior part of the hearth, or through one of the tuyere holes, until it reaches the metal; the outer ends of these rods being connected with a battery, the electric current will be caused to pass through the iron—steps being taken not to connect it so long as to entirely decompose the iron, and bring it to a malleable state. When the electricity is to be applied to iron in a puddling or rolling-furnace, two iron rods are also used; one of which is inserted into the fused metal, and the other end is connected with a battery; the other end is attached to an insulated handle of porcelain, pottery, or other non-conducting substance, and a wire from the battery is connected to it, close to the handle. By means of the handle, the extremity of the rod is caused to traverse the iron in its melted state, or during its transition to the solid state, and the electric current will, therefore, pass through the metal in every possible direction."

The following is the paragraph from *The Times*:—"The attention of the inventors has been attracted to a process of communication lately introduced into their manufacture. The application of electricity, to separate several of the expensive processes, has, it is stated, been tried in the Welsh and Shropshire districts with satisfactory results. It appears that the early fuel and labour required for the purification of the iron from molten phosphorus, and such volatile elements, were the high market value, and those being all stationary, have limited the iron-potteries, whatever the large stores of metal, after drawing from the blast, or, in the method of concentration, subjected to a powerful reverberatory furnace, which so dissipates the impure composition, that in the process of purifying they are readily treated. The London inventors, it is stated, have tried this iron after a single re-heating, and presented it equal to the best metal in the market. In the same process no copper was used by the iron-potteries, but, as a result of this, was sent to market with a moderate reduction, and then presented to have placed first in a few hours the metal was converted into cast iron. Should these facts prove what they assert, they are calculated to affect most seriously the important interests of our trade."

Manufacture of Metal Alloys.—The House of Lords have rejected a motion made under the Standing Orders from the operation of the Joint Stock Companies' Registration Act.

THE COAL TRADE—THE STRIKE.

We have received the following return, which we shall extract briefly—showing the number of miners at present employed; the number of miners who have left the Union, and returned work; together with statement of the quantity of coal raised per day:

Type	Miners	Miners left Union	Miners returned work	Coal raised per day
Wheat	1000	100	100	1000
Tens	1000	100	100	1740
Total	6000	600	600	6000
Return to August 5.	5000	500	500	5000
Increase this week.	600	600	600	600

Robert Gillis, Secretary.

Coal Trade Office, Newcastle-upon-Tyne, August 10.

THE COAL TRADE—THE PITMEN'S STRIKE.

We are glad to observe there is some indication of a return to employment on the part of the colliers in the north. On Monday and Tuesday last, the Marquis of Londonderry had carts employed replacing the effects of numbers of families who had been ejected in the neighbourhood of Fawdon—about ninety colliers having left the Union, and returned to their work at the "Shiney Pit;" 104 have also returned to the Dorothy, and the majority to the Lonsdale pits; several others are rapidly being filled up by the old hands. We have been also informed, that the men have returned to the St. Hilda Pit, South Shields, on condition of working until the 3rd April, or to leave at a month's notice, and no "longer stop" to be kept, but to be paid in cash. About thirty or forty of the old hands have also returned to their employment at Messrs. Briggs and Standish's Collieries, Wakefield, on hearing that one of the partners was in Wales, procuring fresh hands. In many instances numbers of men have broken away from the Union, and gone to their employment; but several having been ejected during the past week, is a painful proof a large portion are still infatuated enough to listen to the delegates and others.

A meeting was held on the Town Moor, Newcastle-upon-Tyne, on Tuesday last, and, as usual, was addressed by delegates. Revley, Hardy, Mitchell, Bell, and others, moved and seconded resolutions, reflecting on the masters, and called on the men to be firm, and listen to their delegates. Another meeting was held on the Banks, at Durham, when they pledged themselves to hold out still, a gradual return to work appears to be taking place. Mr. Roberts had a "full day" at Stockport, in Cheshire, on Monday. A meeting was held at Haslegrove; one Burrell took the chair, and complained of the apathy of the miners. Roberts excused himself from speaking much, as he had a cold, but informed them that the income of many of the turn-outs averaged only 1d. a week, and called on them to assist the cause. Here is a man pocketing £200. a year, taken from starving creatures, and persuading them to keep from employment, where a competency (to insure, at least, comfort) may be obtained, knowing, as he well does, the moment their eyes are opened his "occupation's gone." When will these foolish men awake? In general, we are happy to say, a better feeling appears to prevail than has for some time past, and a few weeks more will, we trust, re-establish tranquillity, and see the colliers once more universally in employ.

This state of things has been brought about by the firmness and determination shown at last by the coalowners, who, after finding kind offers, threats, and even妖术, useless, began at length to introduce Welsh and Irish labour into the collieries—and, no sooner was this done, than the old hands began to rush by hundreds to resume their old places; and we trust very shortly the Union will be at an end.

One principal result of the cessation from employment of large bodies of men is, an extensive decrease in the circulating medium in the neighbourhood, from their inability to purchase the usual necessaries of life—consequently, producing proportionately diminished returns on the part of the shopkeepers—and distress widens and increases. Another result is on the produce of capital invested in large works in the neighbourhood of a strike, and of this we could not have a better illustration than in the case of the Pontefract and South Shields Railway Company, a report of the meeting of which will be found in another column. In this case the working of the line showed a more favourable result up to April than had ever before been exhibited—the earnings from January to April exceeding any former period by 11,362.—In fact, the earnings of the first three months of the half-year were 204,321; but the latter three months, during which the strike existed, they diminished to 30,282. This requires no comment, to show the wide extent of mischief arising from these futile attempts to force the price of labour, and the vast public deterioration of property they occasion, besides the local and individual misery of which they are the cause, and the vast amount of destitution and crime to which they give birth.

The Miners' Strike—GLASGOW.—(From a Correspondent.)—In a former communication, I intimated the probability that the masters and men would have their differences amicably arranged, and it is now satisfactory to find that such is the case. The masters have consented to pay the men £1. per day for restricted work (about five full days' work), and the men have seen in their interest to agree to this, and have returned to their respective employments. The only point of difference now unsettled is, the necessity of buying all their coal out of the stores kept by the masters; this, however, is a grievance for which the men hold the proper remedy in their own hands—by saving as much out of their early pay as will enable them to buy for themselves with ready cash the necessary supplies where they please. It is unfortunate for the men that they are not at perfect liberty to act for themselves, independent of the Union. Several of the miners in the Airdrie district here give their employers notice, that unless they are paid an advance of wages, they will strike also; and the belief is pretty general, that a very extensive strike of the miners will take place next month; and, if so, the masters will not be in a very favourable position—for they are already short of miners, both journeymen and male, and the present stock of male iron is unprecedentedly small.

From another report, we learn, that the strike at Newcastle has given an immense impulse to the trade throughout Pitt, and all up the Firth of Forth; upwards of 1000 tons of coal per day are delivered at Charlton and Ainslie. Mr. David and Invergordon are all equally busy—for these are railroad concentrations at all three ports. But, perhaps, the best illustration of the health of the coal trade is the fact, that from 150 to 180 tons are shipped at Airdrie, where formerly few were shipped. Of course this has caused a stir at the pits, or houses consequences; and the consequence is, that some new pits (Scotch coal) have been lately opened.

The Arsenical Railway.—In another column will be found the announcement of the Twelfth Annual Exhibition of the Royal Cornwall Polytechnic Society, at which, we understand, there will be exhibited a large working model of the application of atmospheric pressure to railroads, in which many striking improvements are made, particularly in the arrangement and closing of the valve. At a time when the application of the atmospheric principle is likely to be adopted on the line of railway through Cornwall, where it offers considerable advantages, this feature must be of great interest. We shall endeavor to procure some particulars for our next week's Number.

Monks' Railway Service.—An improvement in the method of conveying the piles of timber, or other cargoes, sprung to just now, by which each pile occupies the space, and all the cinders of the steel is made available. The upper pile, bearing the main weight, is held down by each end, forming a ridge, against which the end of the pile below, and then against the end before, is held together, and the lower end lies on the side in the usual manner; this is an entirely new principle in piling methods, and it is said they will bear a much greater strain with a less quantity of metal, than any on the old plan. Experiments were made with a square twenty-one-foot long, with a bunch of piles of three inches, which was found, with a 20 lbs. weight, it vibrated freely, reflected no sound, and returned to its original position on the weight being removed.

Lancashire.—Monks, Ashton and Co., Great Lever, Chorley, and a working model for the Cheadle Iron Works, a few days ago, which enabled divers piles to be lifted and equal to timber, and weighed stones, using the largest ever made in the Tyne.

Trade Report—Stock Market.—The Lord of South Shropshire, representing the Admiralty, has given a sum of £1000 to the Royal Naval Hospital Fund, to be used to the benefit of the Royal Navy.

The medical service money, the extra money for the medical service, and the amount given by the Admiralty, will together be used to the benefit of the Royal Navy.

